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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/054,199

01/22/2002

Keisuke Fujimoto

F-7289

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28107

7590

12/15/2004

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EXAMINER

BEATTY, ROBERT B

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,199

Applicant(s)

FUJIMOTO ET AL.

Examiner

Robert Beatty

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-11 is/are allowed.
- 6) ☒ Claim(s) 1-4,7,12-15 and 17 is/are rejected.
- 7) ☒ Claim(s) 5,6,8 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-4,7 are rejected under 35 U.S.C. 102(b) as being anticipated by Holze, Jr.

Holze, Jr. teach a ultrasonic vibration tool comprising a block of a rectangular parallelepiped form which includes an input face 12 and an output face 18. A source 16,14 of ultrasonic vibrations is connected to the input face. A plurality of slots 24 are formed in the block. The input face has a plurality of pads 36 bonded to the input face which change the mass distribution of the ultrasonic vibration tool. See Fig. 4. In one example, the height of the vibrator is 5.235" which is half a wavelength of the input source, the length of the vibrator is 6", the distance between the slots is less than $\frac{1}{2}$ a wavelength (5.235") since the total length is 6", the mass pads are either $\frac{1}{8}$, $\frac{1}{4}$, or $\frac{1}{2}$ an inch high which is smaller than $\frac{1}{4}$ a wavelength. As seen in Fig.4, the height of the pads increases from distance from the middle portion.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be

Art Unit: 2852

patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12/1,13/12/1, 14/1,15/14/1, 17/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holze,Jr in view of Snelling et al.

Holtze, Jr. taught supra discloses everything claimed except the vibrator being used in a fixing apparatus for fixing toner images to paper sheets. Snelling et al. teach a fixing device which uses a vibrational source 192 to heat a heating roller 182 which is opposite a pressure roller 186 wherein a paper sheet having a toner image is passed between the heating roller and pressure roller so as to fix the toner image to the sheet. See Fig.1. In addition, the vibration heat source can be used with a belt type fixing unit. See Fig.3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a vibrational source in a fixing device because a safe and well-controlled heat source can be used as taught in Snelling et al.

3. Claims 9-11,12-17/9, are allowable over the prior art of record.

4. Claims 5-6,8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Harris et al., and Tobe et al. show vibrational horns having recesses; Welter, Montfort et al. teach vibrational horns having mass distributions; Tsuchiya et al., Snelling '013, Fujimoto et al., Fujimoto (JP), and JP'620 all teach the vibrational sources.

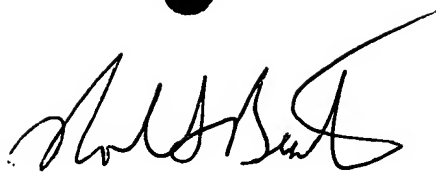
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Beatty whose telephone number is (571) 272-2130. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley, can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Application/Control Number: 10/054,199

Art Unit: 2852

Page 5

A handwritten signature in black ink, appearing to read 'Robert Beatty', with a long, sweeping horizontal stroke extending to the right.

Robert Beatty
Primary Examiner
Art Unit 2852

December 11, 2004